SEQUENCE LISTING

<110> Agensys, Inc.
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<120> NUCLEIC ACID AND CORRESPONDING PROTEIN
ENTITLED 121P1F1 USEFUL IN TREATMENT AND DETECTION OF CANCER

<130> 51158-20034.20

<140> US10/087,190
<141> 2002-02-28

<150> US 09/779,250
<151> 2001-03-05

<160> 69

<170> FastSEQ for Windows Version 4.0

<210> 1
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<212> DNA
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aagaaagctc ttttgctagc ctggttcgct cttccgtttc acatcggcca attttagctt 120
tctcaatgct tttctgtagg cttgcatgct tttgacttcc ctcagacaac tgagattcca 180
gaacctccaa cttatgtttc cttgcatgaa gagctttact tggaaaagcc caataataat 240
tagaagttcc gatc 254

<210> 2
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<213> Homo Sapiens

<220>
<221> CDS
<222> (82)...(696)

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Met Ser Lys Lys Lys Gly Leu Ser Ala Glu
1 5 10

gaa aag aga act cgc atg atg gaa ata ttt tct gaa aca aaa gat gta 159
Glu Lys Arg Thr Arg Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val
15 20 25

ttt caa tta aaa gac ttg gag aag att gct ccc aaa gag aaa ggc att 207
Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile

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            30                  35                  40

act gct atg tca gta aaa gaa gtc ctt caa agc tta gtt gat gat ggt   255
Thr Ala Met Ser Val Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly
         45                  50                  55

atg gtt gac tgt gag agg atc gga act tct aat tat tat tgg gct ttt   303
Met Val Asp Cys Glu Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe
     60                  65                  70

cca agt aaa gct ctt cat gca agg aaa cat aag ttg gag gtt ctg gaa   351
Pro Ser Lys Ala Leu His Ala Arg Lys His Lys Leu Glu Val Leu Glu
 75                  80                  85                  90

tct cag ttg tct gag gga agt caa aag cat gca agc cta cag aaa agc   399
Ser Gln Leu Ser Glu Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser
                 95                 100                 105

att gag aaa gct aaa att ggc cga tgt gaa acg gaa gag cga acc agg   447
Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg
            110                 115                 120

cta gca aaa gag ctt tct tca ctt cga gac caa agg gaa cag cta aag   495
Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys
        125                 130                 135

gca gaa gta gaa aaa tac aaa gac tgt gat ccg caa gtt gtg gaa gaa   543
Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu
    140                 145                 150

ata cgc caa gca aat aaa gta gcc aaa gaa gct gct aac aga tgg act   591
Ile Arg Gln Ala Asn Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr
155                 160                 165                 170

gat aac ata ttc gca ata aaa tct tgg gcc aaa aga aaa ttt ggg ttt   639
Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe
                175                 180                 185

gaa gaa aat aaa att gat aga act ttt gga att cca gaa gac ttt gac   687
Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp
            190                 195                 200

tac ata gac taaaatattc catggtggtg aaggatgtac aagcttgtga           736
Tyr Ile Asp
        205

atatgtaaat tttaaactat tatctaacta agtgtactga attgtcgttt gcctgtaact 796
gtgtttatca ttttattaat gttaaataaa gtgtaaaatg caaaaaaaaa aaaaaaaaaa 856
aaaaaaaaaa a                                                      867

<210> 3
<211> 205
<212> PRT
<213> Homo Sapiens

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 1               5                  10                  15
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            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
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        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145                 150                 155                 160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165                 170                 175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205
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<210> 4
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<212> DNA
<213> Homo Sapiens

<220>
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<222> (82)...(459)

<400> 4

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                        Met Ser Lys Lys Lys Gly Leu Ser Ala Glu
                         1               5                  10

gaa aag aga act cgc atg atg gaa ata ttt tct gaa aca aaa gat gta   159
Glu Lys Arg Thr Arg Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val
                15                  20                  25

ttt caa tta aaa gac ttg gag aag att gct ccc aaa gag aaa ggc att   207
Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile
            30                  35                  40

act gct atg tca gta aaa gaa gtc ctt caa agc tta gtt gat gat ggt   255
Thr Ala Met Ser Val Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly
        45                  50                  55

atg gtt gac tgt gag agg atc gga act tct aat tat tat tgg gct ttt   303
Met Val Asp Cys Glu Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe
    60                  65                  70

cca agt aaa gct ctt cat gca agg aaa cat aag ttg gag gtt ctg gaa   351
Pro Ser Lys Ala Leu His Ala Arg Lys His Lys Leu Glu Val Leu Glu
75                  80                  85                  90

tct cag gac cct ggc tgc tgc ttc cat gaa ata att aaa gtc tcc tat   399
Ser Gln Asp Pro Gly Cys Cys Phe His Glu Ile Ile Lys Val Ser Tyr
                95                  100                 105
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tat aga aaa ttc tgg ctg ggc gca gtg gct cac gcc tgt aat ccc agc   447
Tyr Arg Lys Phe Trp Leu Gly Ala Val Ala His Ala Cys Asn Pro Ser
            110                 115                 120

act ttg gga ggc tgaggcgggc agatcacgag gtgactttcc cccacccccа       499
Thr Leu Gly Gly
        125

catgaagtgc aagatggagt tgtctgaggg aagtcaaaag catgcaagcc tacagaaaag 559
cattgagaaa gctaaaattg gccgatgtga aacggaagag cgaaccaggc tagcaaaaga 619
gctttcttca cttcgagacc aaagggaaca gctaaaggca gaagtagaaa aatacaaaga 679
ctgtgatccg caagttgtgg aagaaatacg ccaagcaaat aaagtagcca aagaagctgc 739
taacagatgg actgataaca tattcgcaat aaaatcttgg gccaaaagaa aatttgggtt 799
tgaagaaaat aaaattgata gaacttttgg aattccagaa gactttgact acatagacta 859
aaatattcca tggtggtgaa ggatgtacaa gcttgtgaat atgtaaattt taaactatta 919
tctaactaag tgtactgaat tgtcgtttgc ctgtaactgt gtttatcatt ttattaatgt 979
taaataaagt gtaaaatgca aaaaaaaaaa aaaaaaaaaa aaaaaaaaa             1028

<210> 5
<211> 126
<212> PRT
<213> Homo Sapiens

<400> 5
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            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Asp Pro Gly Cys
                85                  90                  95
Cys Phe His Glu Ile Ile Lys Val Ser Tyr Tyr Arg Lys Phe Trp Leu
            100                 105                 110
Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu Gly Gly
        115                 120                 125


<210> 6
<211> 1028
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (501)...(857)

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actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcaggac 360
cctggctgct gcttccatga aataattaaa gtctcctatt atagaaaatt ctggctgggc 420
gcagtggctc acgcctgtaa tcccagcact ttgggaggct gaggcgggca gatcacgagg 480
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tgactttccc ccacccccac atg aag tgc aag atg gag ttg tct gag gga agt 533
                       Met Lys Cys Lys Met Glu Leu Ser Glu Gly Ser
                        1               5                  10

caa aag cat gca agc cta cag aaa agc att gag aaa gct aaa att ggc   581
Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly
            15                  20                  25

cga tgt gaa acg gaa gag cga acc agg cta gca aaa gag ctt tct tca   629
Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser
        30                  35                  40

ctt cga gac caa agg gaa cag cta aag gca gaa gta gaa aaa tac aaa   677
Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys
    45                  50                  55

gac tgt gat ccg caa gtt gtg gaa gaa ata cgc caa gca aat aaa gta   725
Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val
60                  65                  70                  75

gcc aaa gaa gct gct aac aga tgg act gat aac ata ttc gca ata aaa   773
Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys
                80                  85                  90

tct tgg gcc aaa aga aaa ttt ggg ttt gaa gaa aat aaa att gat aga   821
Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg
            95                  100                 105

act ttt gga att cca gaa gac ttt gac tac ata gac taaaatattc       867
Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        110                 115

catggtggtg aaggatgtac aagcttgtga atatgtaaat tttaaactat tatctaacta 927
agtgtactga attgtcgttt gcctgtaact gtgtttatca ttttattaat gttaaataaa 987
gtgtaaaatg caaaaaaaaa aaaaaaaaaa aaaaaaaaaa a                     1028

<210> 7
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 7
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 1               5                  10                  15
Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Glu
            20                  25                  30
Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp Gln Arg
        35                  40                  45
Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp Pro Gln
    50                  55                  60
Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val Ala Lys Glu Ala Ala
65                  70                  75                  80
Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala Lys Arg
                85                  90                  95
Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly Ile Pro
            100                 105                 110
Glu Asp Phe Asp Tyr Ile Asp
        115

<210> 8
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<211> 752
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (82)...(447)

<400> 8
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ggaagccccc gcgcccgcgc c atg tca aag aaa aaa gga ctg agt gca gaa 111
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu
1 5 10

gaa aag aga act cgc atg atg gaa ata ttt tct gaa aca aaa gat gta 159
Glu Lys Arg Thr Arg Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val
15 20 25

ttt caa tta aaa gac ttg gag aag att gct ccc aaa gag aaa ggc att 207
Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile
30 35 40

act gct atg tca gta aaa gaa gtc ctt caa agc tta gtt gat gat ggt 255
Thr Ala Met Ser Val Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly
45 50 55

atg gtt gac tgt gag agg atc gga act tct aat tat tat tgg gct ttt 303
Met Val Asp Cys Glu Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe
60 65 70

cca agt aaa gct ctt cat gca agg aaa cat aag ttg gag gtt ctg gaa 351
Pro Ser Lys Ala Leu His Ala Arg Lys His Lys Leu Glu Val Leu Glu
75 80 85 90

tct cag ttg tct gag gga agt caa aag cat gca agc cta cag aaa agc 399
Ser Gln Leu Ser Glu Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser
95 100 105

att gag aaa gct aaa att ggc cga tgt gaa acg gcc aag caa ata aag 447
Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Ala Lys Gln Ile Lys
110 115 120

tagccaaaga agctgctaac agatggactg ataacatatt cgcaataaaa tcttgggcca 507
aaagaaaatt tgggtttgaa gaaaataaaa ttgatagaac ttttggaatt ccagaagact 567
ttgactacat agactaaaat attccatggt ggtgaaggat gtacaagctt gtgaatatgt 627
aaattttaaa ctattatcta actaagtgta ctgaattgtc gtttgcctgt aactgtgttt 687
atcattttat taatgttaaa taaagtgtaa aatgcaaaaa aaaaaaaaaa aaaaaaaaaa 747
aaaaa 752

<210> 9
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 9
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20 25 30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
35 40 45

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Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Ala Lys Gln Ile Lys
        115                 120
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<210> 10
<211> 822
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (82)...(651)

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                       Met Ser Lys Lys Lys Gly Leu Ser Ala Glu
                        1               5                  10

gaa aag aga act cgc atg atg gaa ata ttt tct gaa aca aaa gat gta   159
Glu Lys Arg Thr Arg Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val
                15                  20                  25

ttt caa tta aaa gac ttg gag aag att gct ccc aaa gag aaa ggc att   207
Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile
            30                  35                  40

act gct atg tca gta aaa gaa gtc ctt caa agc tta gtt gat gat ggt   255
Thr Ala Met Ser Val Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly
        45                  50                  55

atg gtt gac tgt gag agg atc gga act tct aat tat tat tgg gct ttt   303
Met Val Asp Cys Glu Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe
    60                  65                  70

cca agt aaa gct ctt cat gca agg aaa cat aag ttg gag gtt ctg gaa   351
Pro Ser Lys Ala Leu His Ala Arg Lys His Lys Leu Glu Val Leu Glu
75                  80                  85                  90

tct cag ttg tct gag gga agt caa aag cat gca agc cta cag aaa agc   399
Ser Gln Leu Ser Glu Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser
                95                  100                 105

att gag aaa gct aaa att ggc cga tgt gaa acg gaa gag cga acc agg   447
Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg
            110                 115                 120

cta gca aaa gag ctt tct tca ctt cga gac caa agg gaa cag cta aag   495
Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys
        125                 130                 135

gca gaa gta gaa aaa tac aaa gac tgt gat ccg caa gtt gtg gaa gaa   543
Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu
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    140                 145                 150

ata cat aac ata ttc gca ata aaa tct tgg gcc aaa aga aaa ttt ggg   591
Ile His Asn Ile Phe Ala Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly
155                 160                 165                 170

ttt gaa gaa aat aaa att gat aga act ttt gga att cca gaa gac ttt   639
Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe
                175                 180                 185

gac tac ata gac taaaatattc catggtggtg aaggatgtac aagcttgtga       691
Asp Tyr Ile Asp
            190

atatgtaaat tttaaactat tatctaacta agtgtactga attgtcgttt gcctgtaact 751
gtgtttatca ttttattaat gttaaataaa gtgtaaaatg caaaaaaaaa aaaaaaaaaa 811
aaaaaaaaaa a                                                      822

<210> 11
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 11
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 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile His Asn Ile Phe Ala
145                 150                 155                 160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165                 170                 175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180                 185                 190


<210> 12
<211> 1205
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (281)...(850)

<400> 12
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gggcaggagt cgctgctctt gtgccgggtg ctgctggttg tgtagggcgc tgttgctttt 180
ttaaggacgc tctgcactga attaggcttc ctcgtgggtc atgatcagtt aagtcctgtc 240
aaagaaaaaa ggactgagtg cagaagaaaa gagaactcgc atg atg gaa ata ttt   295
                                          Met Met Glu Ile Phe
                                           1               5

tct gaa aca aaa gat gta ttt caa tta aaa gac ttg gag aag att gct   343
Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala
                10                  15                  20

ccc aaa gag aaa ggc att act gct atg tca gta aaa gaa gtc ctt caa   391
Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys Glu Val Leu Gln
            25                  30                  35

agc tta gtt gat gat ggt atg gtt gac tgt gag agg atc gga act tct   439
Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg Ile Gly Thr Ser
        40                  45                  50

aat tat tat tgg gct ttt cca agt aaa gct ctt cat gca agg aaa cat   487
Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His Ala Arg Lys His
    55                  60                  65

aag ttg gag gtt ctg gaa tct cag ttg tct gag gga agt caa aag cat   535
Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly Ser Gln Lys His
70                  75                  80                  85

gca agc cta cag aaa agc att gag aaa gct aaa att ggc cga tgt gaa   583
Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu
                90                  95                  100

acg gaa gag cga acc agg cta gca aaa gag ctt tct tca ctt cga gac   631
Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp
            105                 110                 115

caa agg gaa cag cta aag gca gaa gta gaa aaa tac aaa gac tgt gat   679
Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp
        120                 125                 130

ccg caa gtt gtg gaa gaa ata cgc caa gca aat aaa gta gcc aaa gaa   727
Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val Ala Lys Glu
    135                 140                 145

gct gct aac aga tgg act gat aac ata ttc gca ata aaa tct tgg gcc   775
Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala
150                 155                 160                 165

aaa aga aaa ttt ggg ttt gaa gaa aat aaa att gat aga act ttt gga   823
Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly
                170                 175                 180

att cca gaa gac ttt gac tac ata gac taaaatattc catggtggtg         870
Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            185                 190

aaggatgtac aagcttgtga atatgtaaat tttaaactat tatctaacta agtgtactga 930
attgtcgttt gcctgtaact gtgtttatca ttttattaat gttaaataaa gtgtaaaatg 990
cagatgttct tcaccccttt tggtagaaca aaagcaggat gataaccata tccccccagt 1050
gctcatcaaa gtaggacact aaaaatccat ccatctcagt caaagtcgag cggccgcgaa 1110
tttagtagta gtagcggccg ctctagagga tccaagctta cgtacgcgtg catgcgacgt 1170
catagctctt ctatagtgtc acctaaattc aagtt                           1205
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<210> 13
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 13
Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp
 1   5   10   15
Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val
            20   25   30
Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu
        35   40   45
Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu
    50   55   60
His Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu
65   70   75   80
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
                85   90   95
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
            100   105   110
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
        115   120   125
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
    130   135   140
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
145   150   155   160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165   170   175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180   185   190

<210> 14
<211> 205
<212> PRT
<213> Homo Sapiens

<400> 14
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85   90   95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100   105   110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115   120   125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130   135   140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145   150   155   160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165   170   175

```
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205


<210> 15
<211> 126
<212> PRT
<213> Homo Sapiens

<400> 15
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Asp Pro Gly Cys
                85                  90                  95
Cys Phe His Glu Ile Ile Lys Val Ser Tyr Tyr Arg Lys Phe Trp Leu
            100                 105                 110
Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu Gly Gly
        115                 120                 125


<210> 16
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 16
Met Lys Cys Lys Met Glu Leu Ser Glu Gly Ser Gln Lys His Ala Ser
 1               5                  10                  15
Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Glu
            20                  25                  30
Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp Gln Arg
        35                  40                  45
Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp Pro Gln
    50                  55                  60
Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val Ala Lys Glu Ala Ala
65                  70                  75                  80
Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala Lys Arg
                85                  90                  95
Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly Ile Pro
            100                 105                 110
Glu Asp Phe Asp Tyr Ile Asp
        115


<210> 17
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 17
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
```

```
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Ala Lys Gln Ile Lys
        115                 120
```

<210> 18
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 18

```
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile His Asn Ile Phe Ala
145                 150                 155                 160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165                 170                 175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180                 185                 190
```

<210> 19
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 19

```
Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp
 1               5                  10                  15
Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val
            20                  25                  30
Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu
        35                  40                  45
```

```
Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu
    50                  55                  60
His Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu
65                  70                  75                  80
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
                85                  90                  95
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
            100                 105                 110
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
        115                 120                 125
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
    130                 135                 140
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
145                 150                 155                 160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165                 170                 175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180                 185                 190


<210> 20
<211> 205
<212> PRT
<213> Homo Sapiens

<400> 20
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1                   5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145                 150                 155                 160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165                 170                 175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205


<210> 21
<211> 205
<212> PRT
<213> Homo Sapiens

<400> 21
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
```

```
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145                 150                 155                 160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165                 170                 175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205
```

<210> 22
<211> 205
<212> PRT
<213> Homo Sapiens

<400> 22

```
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145                 150                 155                 160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165                 170                 175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205
```

<210> 23
<211> 205
<212> PRT
<213> Mus musculus

<400> 23
Met Ser Lys Lys Arg Gly Leu Ser Gly Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Phe Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Leu Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys Arg Lys Leu Glu Ala Leu Asn Ser Gln Leu Ser Glu Gly
                85   90   95
Ser Gln Lys His Ala Asp Leu Gln Lys Ser Ile Glu Lys Ala Arg Val
            100   105   110
Gly Arg Gln Glu Thr Glu Glu Arg Ala Met Leu Ala Lys Glu Leu Phe
        115   120   125
Ser Phe Arg Asp Gln Arg Gln Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130   135   140
Arg Glu Cys Asp Pro Gln Val Val Glu Glu Ile Arg Glu Ala Asn Lys
145   150   155   160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165   170   175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Ser Lys Ile Asp
            180   185   190
Lys Asn Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195   200   205

<210> 24
<211> 198
<212> PRT
<213> Homo Sapiens

<400> 24
Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met Met Glu Ile Phe
 1   5   10   15
Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu Glu Lys Ile Ala
            20   25   30
Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys Glu Val Leu Gln
        35   40   45
Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg Ile Gly Thr Ser
    50   55   60
Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His Ala Arg Lys His
65   70   75   80
Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly Ser Gln Lys His
                85   90   95
Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu
            100   105   110
Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp
        115   120   125
Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp
    130   135   140
Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val Ala Lys Glu
145   150   155   160
Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala

```
                165                 170                 175
Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly
            180                 185                 190
Ile Pro Glu Asp Phe Asp
        195
```

<210> 25
<211> 200
<212> PRT
<213> Schizosaccharomyces pombe

<400> 25

```
Lys Gly Leu Ser Leu Ala Glu Lys Arg Arg Arg Leu Glu Ala Ile Phe
 1               5                  10                  15
His Asp Ser Lys Asp Phe Phe Gln Leu Lys Glu Val Glu Lys Leu Gly
            20                  25                  30
Ser Lys Lys Gln Ile Val Leu Gln Thr Val Lys Asp Val Leu Gln Ser
        35                  40                  45
Leu Val Asp Asp Asn Ile Val Lys Thr Glu Lys Ile Gly Thr Ser Asn
    50                  55                  60
Tyr Tyr Trp Ser Phe Pro Ser Asp Ala Lys Arg Ser Arg Glu Ser Val
65                  70                  75                  80
Leu Gly Ser Leu Gln Ala Gln Leu Asp Asp Leu Lys Gln Lys Ser Lys
                85                  90                  95
Thr Leu Asp Glu Asn Ile Ser Phe Glu Lys Ser Lys Arg Asp Asn Glu
            100                 105                 110
Gly Thr Glu Asn Asp Ala Asn Gln Tyr Thr Leu Glu Leu Leu His Ala
        115                 120                 125
Lys Glu Ser Glu Leu Lys Leu Leu Lys Thr Gln Leu Ser Asn Leu Asn
    130                 135                 140
His Cys Asn Pro Glu Thr Phe Glu Leu Lys Asn Glu Asn Thr Lys Lys
145                 150                 155                 160
Tyr Met Glu Ala Ala Asn Leu Trp Thr Asp Gln Ile His Thr Leu Ile
                165                 170                 175
Ala Phe Cys Arg Asp Met Gly Ala Asp Thr Asn Gln Ile Arg Glu Tyr
            180                 185                 190
Cys Ser Ile Pro Glu Asp Leu Asp
        195                 200
```

<210> 26
<211> 14
<212> PRT
<213> Clostridiumn toxi

<400> 26

```
Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
 1               5                  10
```

<210> 27
<211> 21
<212> PRT
<213> Plasmodium falciparum

<400> 27

```
Asp Ile Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe
 1               5                  10                  15
Asn Val Val Asn Ser
            20
```

<210> 28
<211> 16
<212> PRT
<213> Streptococcus aureus

<400> 28
Gly Ala Val Asp Ser Ile Leu Gly Gly Val Ala Thr Tyr Gly Ala Ala
 1   5   10   15

<210> 29
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificially Synthesized Peptide

<221> VARIANT
<222> 3
<223> Xaa = cyclohexylalanine, phenylalanine, or
      tyrosine

<221> VARIANT
<222> 1, 13
<223> Xaa = D-alanine or L-alanine

<400> 29
Xaa Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Xaa
 1   5   10

<210> 30
<211> 43
<212> DNA
<213> Homo Sapiens

<400> 30
ttttgatcaa gctttttttt ttttttttt ttttttttt ttt   43

<210> 31
<211> 42
<212> DNA
<213> Homo Sapiens

<400> 31
ctaatacgac tcactatagg gctcgagcgg ccgcccgggc ag   42

<210> 32
<211> 12
<212> DNA
<213> Homo Sapiens

<400> 32
gatcctgccc gg   12

<210> 33
<211> 40
<212> DNA

<213> Homo Sapiens

<400> 33
gtaatacgac tcactatagg gcagcgtggt cgcggccgag 40

<210> 34
<211> 10
<212> DNA
<213> Homo Sapiens

<400> 34
gatcctcggc 10

<210> 35
<211> 22
<212> DNA
<213> Homo Sapiens

<400> 35
ctaatacgac tcactatagg gc 22

<210> 36
<211> 22
<212> DNA
<213> Homo Sapiens

<400> 36
tcgagcggcc gcccgggcag ga 22

<210> 37
<211> 20
<212> DNA
<213> Homo Sapiens

<400> 37
agcgtggtcg cggccgagga 20

<210> 38
<211> 25
<212> DNA
<213> Homo Sapiens

<400> 38
atatcgccgc gctcgtcgtc gacaa 25

<210> 39
<211> 26
<212> DNA
<213> Homo Sapiens

<400> 39
agccacacgc agctcattgt agaagg 26

<210> 40
<211> 24
<212> DNA
<213> Homo Sapiens

<400> 40
gattacaagg atgacgacga taag 24

<210> 41
<211> 1028
<212> DNA
<213> Homo Sapiens

<400> 41
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagccccc gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcaggac 360
cctggctgct gcttccatga aataattaaa gtctcctatt atagaaaatt ctggctgggc 420
gcagtggctc acgcctgtaa tcccagcact ttgggaggct gaggcgggca gatcacgagg 480
tgactttccc ccacccccac atgaagtgca agatggagtt gtctgaggga agtcaaaagc 540
atgcaagcct acagaaaagc attgagaaag ctaaaattgg ccgatgtgaa acggaagagc 600
gaaccaggct agcaaaagag ctttcttcac ttcgagacca aagggaacag ctaaaggcag 660
aagtagaaaa atacaaagac tgtgatccgc aagttgtgga agaaatacgc caagcaaata 720
aagtagccaa agaagctgct aacagatgga ctgataacat attcgcaata aaatcttggg 780
ccaaaagaaa atttgggttt gaagaaaata aaattgatag aacttttgga attccagaag 840
actttgacta catagactaa aatattccat ggtggtgaag gatgtacaag cttgtgaata 900
tgtaaatttt aaactattat ctaactaagt gtactgaatt gtcgtttgcc tgtaactgtg 960
tttatcattt tattaatgtt aaataaagtg taaaatgcaa aaaaaaaaaa aaaaaaaaaa 1020
aaaaaaaa 1028

<210> 42
<211> 869
<212> DNA
<213> Homo Sapiens

<400> 42
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagccccc gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagagt 360
tgtctgaggg aagtcaaaag catgcaagcc tacagaaaag cattgagaaa gctaaaattg 420
gccgatgtga aacggaagag cgaaccaggc tagcaaaaga gctttcttca cttcgagacc 480
aaagggaaca gctaaaggca gaagtagaaa aatacaaaga ctgtgatccg caagttgtgg 540
aagaaatacg ccaagcaaat aaagtagcca aagaagctgc taacagatgg actgataaca 600
tattcgcaat aaaatcttgg gccaaaagaa aatttgggtt tgaagaaaat aaaattgata 660
gaacttttgg aattccagaa gactttgact acatagacta aaatattcca tggtggtgaa 720
ggatgtacaa gcttgtgaat atgtaaattt taaactatta tctaactaag tgtactgaat 780
tgtcgtttgc ctgtaactgt gtttatcatt ttattaatgt taaataaagt gtaaaatgca 840
aaaaaaaaaa aaaaaaaaaa aaaaaaaaa 869

<210> 43
<211> 869
<212> DNA
<213> Homo Sapiens

<400> 43
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagccccc gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagagt 360
tgtctgaggg aagtcaaaag catgcaagcc tacagaaaag cattgagaaa gctaaaattg 420
gccgatgtga aacggaagag cgaaccaggc tagcaaaaga gctttcttca cttcgagacc 480

aaagggaaca gctaaaggca gaagtagaaa aatacaaaga ctgtgatccg caagttgtgg 540
aagaaatacg ccaagcaaat aaagtagcca aagaagctgc taacagatgg actgataaca 600
tattcgcaat aaaatcttgg gccaaaagaa aatttgggtt tgaagaaaat aaaattgata 660
gaacttttgg aattccagaa gactttgact acatagacta aaatattcca tggtggtgaa 720
ggatgtacaa gcttgtgaat atgtaaattt taaactatta tctaactaag tgtactgaat 780
tgtcgtttgc ctgtaactgt gtttatcatt ttattaatgt taaataaagt gtaaaatgca 840
aaaaaaaaaa aaaaaaaaaa aaaaaaaaa 869

<210> 44
<211> 206
<212> PRT
<213> Homo Sapiens

<400> 44
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Gln Leu Ser Glu
                85   90   95
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
            100   105   110
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
        115   120   125
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
    130   135   140
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
145   150   155   160
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
                165   170   175
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
            180   185   190
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195   200   205

<210> 45
<211> 206
<212> PRT
<213> Homo Sapiens

<400> 45
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Glu Leu Ser Glu
                85   90   95
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys

```
            100                 105                 110
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
        115                 120                 125
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
    130                 135                 140
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
145                 150                 155                 160
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
                165                 170                 175
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
            180                 185                 190
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205


<210> 46
<211> 126
<212> PRT
<213> Homo Sapiens

<400> 46
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Asp Pro Gly Cys
                85                  90                  95
Cys Phe His Glu Ile Ile Lys Val Ser Tyr Tyr Arg Lys Phe Trp Leu
            100                 105                 110
Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu Gly Gly
        115                 120                 125


<210> 47
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 47
Met Lys Cys Lys Met Glu Leu Ser Glu Gly Ser Gln Lys His Ala Ser
 1               5                  10                  15
Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile Gly Arg Cys Glu Thr Glu
            20                  25                  30
Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser Ser Leu Arg Asp Gln Arg
        35                  40                  45
Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr Lys Asp Cys Asp Pro Gln
    50                  55                  60
Val Val Glu Glu Ile Arg Gln Ala Asn Lys Val Ala Lys Glu Ala Ala
65                  70                  75                  80
Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile Lys Ser Trp Ala Lys Arg
                85                  90                  95
Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp Arg Thr Phe Gly Ile Pro
            100                 105                 110
Glu Asp Phe Asp Tyr Ile Asp
        115
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<210> 48
<211> 752
<212> DNA
<213> Homo Sapiens

<400> 48
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360
tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cggccaagca aataaagtag ccaaagaagc tgctaacaga tggactgata 480
acatattcgc aataaaatct tgggccaaaa gaaaatttgg gtttgaagaa aataaaattg 540
atagaacttt tggaattcca gaagactttg actacataga ctaaaatatt ccatggtggt 600
gaaggatgta caagcttgtg aatatgtaaa ttttaaacta ttatctaact aagtgtactg 660
aattgtcgtt tgcctgtaac tgtgtttatc attttattaa tgttaaataa agtgtaaaat 720
gcaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 752

<210> 49
<211> 433
<212> DNA
<213> Homo Sapiens

<400> 49
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360
tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cgg 433

<210> 50
<211> 433
<212> DNA
<213> Homo Sapiens

<400> 50
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360
tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cgg 433

<210> 51
<211> 320
<212> DNA
<213> Homo Sapiens

<400> 51
gccaagcaaa taaagtagcc aaagaagctg ctaacagatg gactgataac atattcgcaa 60
taaaatcttg ggccaaaaga aaatttgggt ttgaagaaaa taaaattgat agaacttttg 120
gaattccaga agactttgac tacatagact aaaatattcc atggtggtga aggatgtaca 180

agcttgtgaa tatgtaaatt ttaaactatt atctaactaa gtgtactgaa ttgtcgtttg 240
cctgtaactg tgtttatcat tttattaatg ttaaataaag tgtaaaatgc aaaaaaaaaa 300
aaaaaaaaaa aaaaaaaaaa 320

<210> 52
<211> 320
<212> DNA
<213> Homo Sapiens

<400> 52
gccaagcaaa taaagtagcc aaagaagctg ctaacagatg gactgataac atattcgcaa 60
taaaatcttg ggccaaaaga aaatttgggt ttgaagaaaa taaaattgat agaacttttg 120
gaattccaga agactttgac tacatagact aaaatattcc atggtggtga aggatgtaca 180
agcttgtgaa tatgtaaatt ttaaactatt atctaactaa gtgtactgaa ttgtcgtttg 240
cctgtaactg tgtttatcat tttattaatg ttaaataaag tgtaaaatgc aaaaaaaaaa 300
aaaaaaaaaa aaaaaaaaaa 320

<210> 53
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 53
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85   90   95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100   105   110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg
        115   120

<210> 54
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 54
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65   70   75   80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85   90   95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100   105   110

Gly Arg Cys Glu Thr Ala Lys Gln Ile Lys
115 120

<210> 55
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 55
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
1 5 10 15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
20 25 30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
35 40 45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
50 55 60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65 70 75 80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
85 90 95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
100 105 110
Gly Arg Cys Glu Thr Ala Lys Gln Ile Lys
115 120

<210> 56
<211> 822
<212> DNA
<213> Homo Sapiens

<400> 56
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360
tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cggaagagcg aaccaggcta gcaaaagagc tttcttcact tcgagaccaa 480
agggaacagc taaaggcaga agtagaaaaa tacaaagact gtgatccgca agttgtggaa 540
gaaatacata acatattcgc aataaaatct tgggccaaaa gaaaatttgg gtttgaagaa 600
aataaaattg atagaacttt tggaattcca gaagactttg actacataga ctaaaatatt 660
ccatggtggt gaaggatgta caagcttgtg aatatgtaaa ttttaaacta ttatctaact 720
aagtgtactg aattgtcgtt tgcctgtaac tgtgtttatc attttattaa tgttaaataa 780
agtgtaaaat gcaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 822

<210> 57
<211> 547
<212> DNA
<213> Homo Sapiens

<400> 57
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360

tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cggaagagcg aaccaggcta gcaaaagagc tttcttcact tcgagaccaa 480
agggaacagc taaaggcaga agtagaaaaa tacaaagact gtgatccgca agttgtggaa 540
gaaatac 547

<210> 58
<211> 547
<212> DNA
<213> Homo Sapiens

<400> 58
ccaaaatcaa acgcgtccgg gcctgtcccg cccctctccc caagcgcggg cccggccagc 60
ggaagcccct gcgcccgcgc catgtcaaag aaaaaaggac tgagtgcaga agaaaagaga 120
actcgcatga tggaaatatt ttctgaaaca aaagatgtat ttcaattaaa agacttggag 180
aagattgctc ccaaagagaa aggcattact gctatgtcag taaaagaagt ccttcaaagc 240
ttagttgatg atggtatggt tgactgtgag aggatcggaa cttctaatta ttattgggct 300
tttccaagta aagctcttca tgcaaggaaa cataagttgg aggttctgga atctcagttg 360
tctgagggaa gtcaaaagca tgcaagccta cagaaaagca ttgagaaagc taaaattggc 420
cgatgtgaaa cggaagagcg aaccaggcta gcaaaagagc tttcttcact tcgagaccaa 480
agggaacagc taaaggcaga agtagaaaaa tacaaagact gtgatccgca agttgtggaa 540
gaaatac 547

<210> 59
<211> 275
<212> DNA
<213> Homo Sapiens

<400> 59
ataacatatt cgcaataaaa tcttgggcca aaagaaaatt tgggtttgaa gaaaataaaa 60
ttgatagaac ttttggaatt ccagaagact ttgactacat agactaaaat attccatggt 120
ggtgaaggat gtacaagctt gtgaatatgt aaattttaaa ctattatcta actaagtgta 180
ctgaattgtc gtttgcctgt aactgtgttt atcattttat taatgttaaa taaagtgtaa 240
aatgcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 275

<210> 60
<211> 275
<212> DNA
<213> Homo Sapiens

<400> 60
ataacatatt cgcaataaaa tcttgggcca aaagaaaatt tgggtttgaa gaaaataaaa 60
ttgatagaac ttttggaatt ccagaagact ttgactacat agactaaaat attccatggt 120
ggtgaaggat gtacaagctt gtgaatatgt aaattttaaa ctattatcta actaagtgta 180
ctgaattgtc gtttgcctgt aactgtgttt atcattttat taatgttaaa taaagtgtaa 240
aatgcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 275

<210> 61
<211> 205
<212> PRT
<213> Homo Sapiens

<400> 61
Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1   5   10   15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20   25   30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35   40   45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50   55   60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His

```
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn Lys
145                 150                 155                 160
Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala Ile
                165                 170                 175
Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile Asp
            180                 185                 190
Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
        195                 200                 205
```

<210> 62
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 62

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Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile His Asn Ile Phe Ala
145                 150                 155                 160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165                 170                 175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180                 185                 190
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<210> 63
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 63

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Met Ser Lys Lys Lys Gly Leu Ser Ala Glu Glu Lys Arg Thr Arg Met
 1               5                  10                  15
Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp Leu
            20                  25                  30
```

```
Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val Lys
        35                  40                  45
Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu Arg
    50                  55                  60
Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu His
65                  70                  75                  80
Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu Gly
                85                  90                  95
Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys Ile
            100                 105                 110
Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu Ser
        115                 120                 125
Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys Tyr
    130                 135                 140
Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile His Asn Ile Phe Ala
145                 150                 155                 160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165                 170                 175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180                 185                 190
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<210> 64
<211> 1205
<212> DNA
<213> Homo Sapiens

<400> 64
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gttttctgta ttgtaatatg tagagcacat tccagaactg ctcagtttcg agttacctaa 60
tggatcttca ctgtgtgcca attagtcgat ttctgtgaaa acgccccggt ttctgccaaa 120
gggcaggagt cgctgctctt gtgccgggtg ctgctggttg tgtagggcgc tgttgctttt 180
ttaaggacgc tctgcactga attaggcttc ctcgtgggtc atgatcagtt aagtcctgtc 240
aaagaaaaaa ggactgagtg cagaagaaaa gagaactcgc atgatggaaa tattttctga 300
aacaaaagat gtatttcaat taaaagactt ggagaagatt gctcccaaag agaaaggcat 360
tactgctatg tcagtaaaag aagtccttca aagcttagtt gatgatggta tggttgactg 420
tgagaggatc ggaacttcta attattattg ggcttttcca agtaaagctc ttcatgcaag 480
gaaacataag ttggaggttc tggaatctca gttgtctgag ggaagtcaaa agcatgcaag 540
cctacagaaa agcattgaga aagctaaaat tggccgatgt gaaacggaag agcgaaccag 600
gctagcaaaa gagctttctt cacttcgaga ccaaagggaa cagctaaagg cagaagtaga 660
aaaatacaaa gactgtgatc cgcaagttgt ggaagaaata cgccaagcaa ataaagtagc 720
caaagaagct gctaacagat ggactgataa catattcgca ataaaatctt gggccaaaag 780
aaaatttggg tttgaagaaa ataaaattga tagaactttt ggaattccag aagactttga 840
ctacatagac taaaatattc catggtggtg aaggatgtac aagcttgtga atatgtaaat 900
tttaaactat tatctaacta agtgtactga attgtcgttt gcctgtaact gtgtttatca 960
ttttattaat gttaaataaa gtgtaaaatg cagatgttct tcaccccttt tggtagaaca 1020
aaagcaggat gataaccata tccccccagt gctcatcaaa gtaggacact aaaaatccat 1080
ccatctcagt caaagtcgag cggccgcgaa tttagtagta gtagcggccg ctctagagga 1140
tccaagctta cgtacgcgtg catgcgacgt catagctctt ctatagtgtc acctaaattc 1200
aagtt                                                             1205
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<210> 65
<211> 756
<212> DNA
<213> Homo Sapiens

<400> 65
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tgtcaaagaa aaaaggactg agtgcagaag aaaagagaac tcgcatgatg gaaatatttt 60
ctgaaacaaa agatgtattt caattaaaag acttggagaa gattgctccc aaagagaaag 120
gcattactgc tatgtcagta aaagaagtcc ttcaaagctt agttgatgat ggtatggttg 180
actgtgagag gatcggaact tctaattatt attgggcttt tccaagtaaa gctcttcatg 240
caaggaaaca taagttggag gttctggaat ctcagttgtc tgagggaagt caaaagcatg 300
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caagcctaca gaaaagcatt gagaaagcta aaattggccg atgtgaaacg gaagagcgaa 360
ccaggctagc aaaagagctt tcttcacttc gagaccaaag ggaacagcta aaggcagaag 420
tagaaaaata caaagactgt gatccgcaag ttgtggaaga aatacgccaa gcaaataaag 480
tagccaaaga agctgctaac agatggactg ataacatatt cgcaataaaa tcttgggcca 540
aaagaaaatt tgggtttgaa gaaaataaaa ttgatagaac ttttggaatt ccagaagact 600
ttgactacat agactaaaat attccatggt ggtgaaggat gtacaagctt gtgaatatgt 660
aaattttaaa ctattatcta actaagtgta ctgaattgtc gtttgcctgt aactgtgttt 720
atcattttat taatgttaaa taaagtgtaa aatgca 756

<210> 66
<211> 756
<212> DNA
<213> Homo Sapiens

<400> 66
tgtcaaagaa aaaaggactg agtgcagaag aaaagagaac tcgcatgatg gaaatatttt 60
ctgaaacaaa agatgtattt caattaaaag acttggagaa gattgctccc aaagagaaag 120
gcattactgc tatgtcagta aaagaagtcc ttcaaagctt agttgatgat ggtatggttg 180
actgtgagag gatcggaact tctaattatt attgggcttt tccaagtaaa gctcttcatg 240
caaggaaaca taagttggag gttctggaat ctcagttgtc tgagggaagt caaaagcatg 300
caagcctaca gaaaagcatt gagaaagcta aaattggccg atgtgaaacg gaagagcgaa 360
ccaggctagc aaaagagctt tcttcacttc gagaccaaag ggaacagcta aaggcagaag 420
tagaaaaata caaagactgt gatccgcaag ttgtggaaga aatacgccaa gcaaataaag 480
tagccaaaga agctgctaac agatggactg ataacatatt cgcaataaaa tcttgggcca 540
aaagaaaatt tgggtttgaa gaaaataaaa ttgatagaac ttttggaatt ccagaagact 600
ttgactacat agactaaaat attccatggt ggtgaaggat gtacaagctt gtgaatatgt 660
aaattttaaa ctattatcta actaagtgta ctgaattgtc gtttgcctgt aactgtgttt 720
atcattttat taatgttaaa taaagtgtaa aatgca 756

<210> 67
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 67
Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp
 1   5   10   15
Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val
            20   25   30
Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu
        35   40   45
Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu
    50   55   60
His Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu
65   70   75   80
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
                85   90   95
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
            100   105   110
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
        115   120   125
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
    130   135   140
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
145   150   155   160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165   170   175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180   185   190

<210> 68
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 68
Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp
 1   5   10   15
Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val
            20   25   30
Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu
        35   40   45
Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu
    50   55   60
His Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu
65   70   75   80
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
                85   90   95
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
            100   105   110
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
        115   120   125
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
    130   135   140
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
145   150   155   160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165   170   175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp
            180   185   190

<210> 69
<211> 190
<212> PRT
<213> Homo Sapiens

<400> 69
Met Met Glu Ile Phe Ser Glu Thr Lys Asp Val Phe Gln Leu Lys Asp
 1   5   10   15
Leu Glu Lys Ile Ala Pro Lys Glu Lys Gly Ile Thr Ala Met Ser Val
            20   25   30
Lys Glu Val Leu Gln Ser Leu Val Asp Asp Gly Met Val Asp Cys Glu
        35   40   45
Arg Ile Gly Thr Ser Asn Tyr Tyr Trp Ala Phe Pro Ser Lys Ala Leu
    50   55   60
His Ala Arg Lys His Lys Leu Glu Val Leu Glu Ser Gln Leu Ser Glu
65   70   75   80
Gly Ser Gln Lys His Ala Ser Leu Gln Lys Ser Ile Glu Lys Ala Lys
                85   90   95
Ile Gly Arg Cys Glu Thr Glu Glu Arg Thr Arg Leu Ala Lys Glu Leu
            100   105   110
Ser Ser Leu Arg Asp Gln Arg Glu Gln Leu Lys Ala Glu Val Glu Lys
        115   120   125
Tyr Lys Asp Cys Asp Pro Gln Val Val Glu Glu Ile Arg Gln Ala Asn
    130   135   140
Lys Val Ala Lys Glu Ala Ala Asn Arg Trp Thr Asp Asn Ile Phe Ala
145   150   155   160
Ile Lys Ser Trp Ala Lys Arg Lys Phe Gly Phe Glu Glu Asn Lys Ile
                165   170   175
Asp Arg Thr Phe Gly Ile Pro Glu Asp Phe Asp Tyr Ile Asp

180 185 190